Relações Internacionais do Mundo Atual

Submetido em: 17/03/2025
Aprovado em: 25/10/2025
Avaliação: Double Blind Reviewe
ISSN: **2316-2880**

ARTIFICIAL INTELLIGENCE IN CRIMINAL PROCEEDINGS: CHALLENGES AND OPPORTUNITIES IN THE CONTEXT OF HUMAN RIGHTS

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ABSTRACT

Objective: To examine the challenges and opportunities of using artificial intelligence (AI) in criminal justice, with emphasis on its impact on human rights and its compliance with fundamental principles of criminal procedure.

Methods: The study employs formal-logical analysis of legal provisions concerning AI, analytical methods to assess practical aspects of its application in criminal proceedings, a systemic method to identify forms of AI use, comparative analysis of international practices, and generalization to identify strengths, limitations and pathways for improving AI deployment in criminal justice.

Results: The findings show that AI is increasingly used in criminal justice in two main ways: (i) as an auxiliary tool for judges, prosecutors, defenders and other participants, particularly in case preparation, analysis of evidence—such as videos, photographs, electronic evidence, and virtual-reality reconstructions—and automated summarization; and (ii) as a tool for delegating secondary tasks, including document processing, automated transcription, translation, and file organization. The study discusses international examples, including controversies involving AI-generated judicial decisions. Although AI offers benefits—automation, improved accuracy, resource optimization and increased procedural efficiency—it also carries substantial risks. These include algorithmic bias, errors, lack of transparency, breaches of personal data, and potential violations of adversarial procedure, equality of arms and due process.

Conclusion: The effective use of AI in criminal proceedings requires ethical, legal and technical safeguards, including transparency mechanisms, human oversight, data-protection guarantees and standardized regulation. AI can strengthen criminal justice, provided it is implemented within a robust framework ensuring respect for human rights.

Keywords: Artificial Intelligence; Criminal Justice; Legal Ethics; Human Rights; Algorithmic Bias; Judicial Transparency; Due Process

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INTELIGÊNCIA ARTIFICIAL EM PROCESSOS CRIMINAIS: DESAFIOS E OPORTUNIDADES NO CONTEXTO DOS DIREITOS HUMANOS

RESUMO

Objetivo: Examinar os desafios e oportunidades do uso da inteligência artificial (IA) na justiça criminal, analisando seus impactos sobre direitos humanos e sua conformidade com princípios fundamentais do processo penal.
Métodos: Foram utilizados métodos formais-lógicos para interpretar normas jurídicas sobre IA, análise para identificar aspectos práticos da aplicação tecnológica no processo penal, método sistêmico para estruturar formas de uso da IA, método comparativo para avaliar experiências internacionais, e método de generalização para identificar características, limitações e caminhos de aprimoramento da IA na justiça criminal.
Resultados: A pesquisa evidencia que a IA já desempenha papel crescente na justiça criminal em duas direções principais: (i) como ferramenta auxiliar para juízes, defensores e demais participantes, especialmente na preparação de posições processuais, análise de provas (incluindo vídeos, fotos, evidências eletrônicas e reconstruções em realidade virtual) e sumarização de casos; e (ii) como instrumento para delegação de tarefas secundárias, como processamento documental, transcrição automática, tradução e organização de autos. Também foram identificados casos internacionais relevantes, inclusive controvérsias sobre uso indevido de IA em decisões judiciais. Os benefícios incluem automação, precisão, economia de recursos e aumento da eficiência. Contudo, há riscos substanciais: vieses algorítmicos, erros de execução, falta de transparência, violação de dados pessoais e possíveis violações a direitos fundamentais como igualdade de armas, contraditório e devido processo legal.
Conclusão: A utilização da IA no processo penal exige salvaguardas éticas, legais e técnicas, incluindo mecanismos de transparência, controle humano, proteção de dados e padronização normativa. Conclui-se que o avanço da IA pode fortalecer a justiça criminal, desde que equilibrado com um sistema robusto de garantias de direitos humanos.

Palavras-chave: inteligência artificial; justiça criminal; direitos humanos; provas digitais; tradução automática; processo penal.

1 INTRODUCTION

Artificial intelligence (AI) is one of the most advanced technologies of the 21st century, with tools used in various spheres of human life. The reproduction of human reasoning and actions through computational systems and other artificial devices opens new possibilities for members of the legal community, enhancing the efficiency of data analysis during document preparation and decision-making. Therefore, lawyers are already actively using AI in various areas of jurisprudence.

However, the use of AI in criminal justice not only opens new opportunities for participants but may also negatively impact the realization of its fundamental principles, such as adversariality and equality of the parties, potentially leading to human rights

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violations. This is unacceptable in light of the democratization of socio-political formations, which has made it necessary to consider the rights, freedoms, and interests of individuals subject to criminal prosecution. Thus, the relevance of conducting research into the theoretical and legal aspects, as well as the practical implementation, of AI in criminal justice concerning its challenges and opportunities in the context of human rights is increasing.

Analysis of Recent Research and Publications. The issue of using artificial intelligence in the law-making and law-enforcement processes is the subject of scientific research by many Ukrainian scholars. In particular, the potential and challenges of AI in judicial processes and judicial decisions have been studied by D.M. Belov and M.V. Belova (2023). The scholars explored various ways AI can be applied within the judicial system and concluded that this technology can accelerate judicial processes, improve access to justice, and reduce human influence on judicial decisions. At the same time, they pointed out the potential risks of using AI in judicial proceedings, including the possibility of algorithmic injustice, lack of algorithm transparency, violations of confidentiality and privacy of data, and issues regarding liability for errors made by AI.

The role and limits of AI application in judicial proceedings were discussed by V.I. Chaban. In his article (2024), the scholar noted that AI could be applied in both court administration and directly in judicial proceedings, assisting judges in analyzing facts for decision-making or aiding parties in formulating legal positions. After analyzing the current situation, the scholar concluded that while the scope of AI's application may vary greatly, its role remains ultimately assistive.

N.S. Horobets and S.M. Naumenko researched the current state of implementing AI technologies in Ukrainian legal practice, as well as the new opportunities and challenges they present (2024). The authors concluded that AI is an effective tool for supporting legal activities, with the most common uses being "legal research" and the automation of legal paperwork, including in advocacy, justice, and other areas. However, they emphasized that the implementation of AI in legal practice creates new opportunities but is accompanied by challenges such as inaccuracy, lack of transparency in AI decisions, and the potential violation of data confidentiality, all of which must be addressed in the development of appropriate legal regulation.

This issue is also the subject of scientific interest among foreign scholars. In particular, S.A. Abu Naser, M.M. Saleh, and S.S. Abu-Naser, in their work (2024), explore the multifaceted connection between AI and the law, carefully examining the

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profound consequences and innovative programs that arise at the intersection of these two fields. Additionally, the scholars highlight ethical considerations and potential biases inherent in AI algorithms and explore the delicate balance between technological progress and the preservation of legal principles such as justice, accountability, and transparency.

Despite the existing body of work, the rapid progress in AI technologies and the lack of in-depth theoretical research regarding their practical application in criminal justice, especially in the context of human rights, underscores the relevance of the chosen topic.

2 METHODS

The research was conducted using various methods of scientific cognition. The formal-logical method was employed to examine legislative provisions related to the use of artificial intelligence in jurisprudence, including in criminal justice. Through the analysis method, practical aspects of applying this cutting-edge technology in criminal case proceedings were identified, particularly regarding the formation of the corresponding infrastructure and the general consequences for human rights, revealing both the positive and negative aspects of using this technology. Using the systemic method, a system of ways to utilize artificial intelligence in criminal justice and its impact on human rights was identified. Through the comparative method, foreign practices of using artificial intelligence in criminal justice were analyzed, along with their relevance to the domestic legal system. Using the generalization method, specific features and drawbacks of using artificial intelligence in criminal justice were identified, and ways to improve and enhance the effectiveness of this technology in order to ensure human rights were determined.

3 RESULTS AND DISCUSSIONS

Artificial intelligence occupies an important place in our modern world, significantly changing the ways we work, communicate, and use technology. The rapid growth in speed and efficiency of tasks previously performed exclusively by humans has occurred due to the creation of new systems for data processing and analysis. This phenomenon is particularly noticeable in areas where human involvement may be

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limited or where high accuracy and rapid execution are crucial for completing a task. For example, in healthcare, artificial intelligence can analyze medical images and detect diseases at early stages, greatly improving the chances of effective treatment. In finance, artificial intelligence predicts market trends and detects fraud, as well as automating processes that reduce costs while simultaneously increasing productivity. Additionally, automated systems based on artificial intelligence optimize production systems, minimizing downtime and improving product quality. The legal field is no exception, as legal systems now face new challenges related to the integration of AI in law enforcement, lawmaking, and legal practice.

The current stage of scientific and technological development is characterized by a significant increase in interest in the concept of "artificial intelligence." In scientific and analytical works, various definitions of this term can be found, reflecting its multifaceted nature and the complexity and diversity of its applications in different areas of life.

According to the views of O.Yu. Paramonov and I.P. Varava, artificial intelligence is "a certain computer program (a set of software tools) that, based on a user's query, collects available data, analyzes and processes it, and then provides some information (performs actions). This result appears as the outcome of intellectual work, resembling human cognitive processes" (Paramonova, O. Yu., & Varava, I. P., 2023).

A similar viewpoint is supported by N.M. Shcherbak and M.S. Utkina, who argue that "artificial intelligence is a computer program based on algorithms for analyzing relevant data and algorithms for making autonomous decisions based on them. During the process of achieving these decisions, it can learn from experience and improve its own efficiency through data analysis, with the goal of accomplishing the set tasks" (Shcherbak, N. M., & Utkina, M. S., 2021).

A somewhat different perspective on the nature of AI is expressed by V.I. Logvinenko, who notes that "artificial intelligence is a complex of technological solutions that allows the imitation of human cognitive functions (including self-learning and problem-solving without a pre-defined algorithm) and achieves results in performing specific tasks that are comparable, at the very least, to the outcomes of intellectual activity" (Logvinenko, B. I., 2022).

At the same time, the term "artificial intelligence" is developing not only in the light of doctrinal discussions but also has its own normative interpretation, provided in

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the Decree of the Cabinet of Ministers of Ukraine "On Approval of the Concept of Artificial Intelligence Development in Ukraine" dated December 2, 2020, No. 1556-p. According to the decree, AI is "an organized set of information technologies, the application of which makes it possible to perform complex, integrated tasks through the use of scientific research methods and information processing algorithms, obtained or independently created during work, to create and use their own knowledge bases, decision-making models, algorithms for working with information, and to determine methods for achieving the set tasks".

It seems that the lack of a unified position regarding the terminological understanding of the category "artificial intelligence" is due to the ongoing development of this technology and the absence of a final result. Nevertheless, it is already quite evident that AI is becoming a source of intelligent reasoning and actions that were previously exclusive to humans. This creates new opportunities in various spheres of life, including criminal justice.

The functioning of criminal justice in Ukraine is ensured by the Constitution of Ukraine, as well as the relevant legislation, among which are the Law of Ukraine "On the Judiciary and Status of Judges," the Criminal Procedural Code of Ukraine, and the Code of Judicial Ethics. One of the significant events of 2024, which laid the foundation for the application of AI in the administration of justice, is the approval by the XX Congress of Judges of Ukraine of the new edition of the Code of Judicial Ethics. Article 16 of this act recognizes the permissibility of judges using AI technologies, provided there is no impact on the independence and impartiality of the judge, the evaluation of evidence, or the decision-making process.

The relevant innovations have already found their application in the practical activities of the courts of commercial and civil jurisdiction, especially in cases related to copyright and related rights. However, in criminal jurisdiction courts, there is still no clear understanding of how to effectively and legally use this technology during the judicial review of criminal proceedings.

After analyzing the aforementioned normative limitations, as well as domestic and foreign law enforcement practices, we believe that there are currently two directions in which AI can be used in criminal justice proceedings: as an auxiliary tool during the preparation of the judge and parties' positions, and for the examination of evidence; and as an object for delegating secondary tasks by judges, court employees, and participants in the judicial process. Let's examine each of these in more detail.

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The integration of artificial intelligence into criminal justice marks a key moment in the evolution of legal criminal practice. By expanding the ability to analyze cases, personalizing approaches, and utilizing predictive analytics, AI enables the judge and participants to navigate complex legal landscapes with greater confidence. The practical application of this technology during the preparation of the judge for the consideration of a criminal case, or during the preparation of positions by the parties, allows for the creation of a concise summary of the case, which contains its most important elements, formed based on the analysis of available evidence, regulations, and relevant precedents. Of course, this does not absolve the need to exercise powers requiring human skills and knowledge, but obtaining a summary created by AI saves a significant amount of human time, especially under the critical workload of the Ukrainian judicial system. Such practices are already officially integrated into the activities of the Supreme Court of India. The National Informatics Centre has developed an AI tool known as AI Saransh, designed to create concise summaries of court debates, which optimizes the process of highlighting disputed issues in court cases.

The application of predictive analytics prepared by AI also represents a significant advancement in building defense strategies. A defender's preparation for the judicial review of a criminal case involves analyzing a large volume of case law, including the practice of the specific presiding judge, with the aim of identifying key aspects that the judge focuses on when making decisions. By using information about the procedural behavior and positions of judges, as well as models of their rulings and verdicts, artificial intelligence can predict how certain judges may respond to specific arguments or evidence presented during the trial. Such predictions allow defense attorneys to adjust their strategies in a timely manner. This practice is also relevant during negotiations for plea agreements or reconciliation, as it enables defense lawyers to more effectively negotiate on behalf of their clients, potentially leading to more favorable outcomes.

The most revolutionary aspect of AI's implementation in criminal justice, in our opinion, concerns the examination of evidence. This primarily involves the analysis of video and graphic information. The widespread use of mobile phones, surveillance cameras, and other devices capable of recording video and taking photographs has made it possible to obtain video and photographic evidence that documents the

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occurrence of a criminal offense. These materials not only help establish the circumstances of the offense but can also serve to confirm or refute the testimonies of the parties involved. Furthermore, the global digitalization of society has led to the emergence of electronic evidence—"digital objects (electronic documents, websites, text, multimedia and voice messages, metadata, databases, and any other data in electronic form) that were used as a means or instrument of committing a criminal offense, retained electronic-digital traces of the criminal offense, or were the subject or object of the criminal offense" (Dehtiarova, O. O., 2021).

Analyzing such evidence during the judicial review of a criminal case allows the court to obtain an objective picture of the events that occurred, which in turn contributes to a fair resolution of the case. However, the examination of video and photographic evidence, as well as electronic evidence, especially those containing large volumes of information, is a labor-intensive process. It is prone to human errors due to the rapid changes in technology and the limited number of specialized personnel with the knowledge required to process such information. Traditional software algorithms used in criminal justice have limitations related to pre-defined characteristics. In contrast, artificial intelligence algorithms not only learn to perform complex tasks but also autonomously develop and determine complex functions and parameters for analyzing video and photographic evidence, electronic evidence, which exceed the capabilities of human perception. These algorithms can match faces, identify weapons and other objects, and detect complex events such as accidents and crimes, both at the time of their occurrence and afterward.

In this context, the rapid evolution of evidence presentation, particularly through virtual reality reconstruction, cannot be overlooked. This technology allows judges and other participants in the judicial process to immerse themselves in the scene of a criminal offense, providing a deep understanding that goes far beyond traditional representations of evidence. Entering the virtual environment by interacting with three-dimensional models of the crime scene contributes to a more detailed analysis of the circumstances of the case, allowing judges not only to see but also to feel the context of the events that took place. Furthermore, this opens new opportunities to explore details that may have previously gone unnoticed, enabling a better understanding of the dynamics of the criminal offense and the interaction between its participants.

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An example of this is the unprecedented use of virtual reality technology by Broward County Circuit Judge Andrew Siegel during a criminal hearing for an individual charged with aggravated assault with a firearm. On December 14, 2024, the judge, along with representatives from both sides, donned Oculus Quest 2 VR headsets to recreate the crime scene. Using AI technologies, the defense team created an immersive experience to illustrate that the defendant was surrounded by intoxicated partygoers causing chaos in his establishment, and that the defendant's actions were solely in self-defense. To create the 3D simulation, actual footage from the crime scene was utilized. This innovative approach helped provide a clearer and more tangible understanding of the events surrounding the case, demonstrating the potential for virtual reality and AI to play a significant role in legal proceedings.

In addition, attention should be drawn to the case *State of Washington v. Pulocki*, where the Washington State Supreme Court rejected the admission of AI-enhanced video evidence (a smartphone video). The defense argued for the inclusion of the video, claiming that the original video had low resolution, significant motion blur, and unclear images. When deciding on the admissibility of the recording, the court noted that the AI tool added and modified materials from the original video. Although the enhancement made the video "more attractive to the user," it did not preserve the integrity of the image. The court concluded that the use of AI to alter the video compromised its authenticity and, therefore, rejected it as evidence. This case highlights the challenges and limitations of using AI-enhanced evidence in court, particularly concerning the preservation of the original material's integrity.

Regarding the use of AI as an object for delegating secondary tasks by judges, court staff, and participants in the judicial process, attention should first be given to the optimization of processing criminal court documents. The use of AI-based tools enhances efficiency and generally reduces errors made by court staff during the creation of electronic case files, filling out statistical forms, and registering documents. By automating routine processes such as scanning, classifying, and analyzing documents, AI can significantly speed up information processing, as well as help identify and correct errors early on, thereby improving the overall quality of criminal proceedings.

Such practices have already been actively implemented in several countries. For example, in 2018, Palm Beach County received a national award for digital innovation due to the implementation of the "Lights-Out Document Processing"

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program. This program streamlines the analysis of submitted documents and allows users to mark and index them with relevant case information. As part of a low-risk pilot project, county employees tested the software on a limited number of documents. After training the system on hundreds of documents, the team evaluated the results. The accuracy of processing was 99%, significantly surpassing the performance of human workers. The implementation of five robotic document management systems was equivalent to the workload of 19 employees, allowing Palm Beach County staff to focus on more complex tasks and enhance their skills.

Equally important is the role of AI technologies in ensuring an individual's right to use their native language or a language they are proficient in during legal proceedings. The globalization of modern legal relationships increasingly involves individuals who do not speak the language of the judicial proceedings. This not only complicates the court's activities but also creates the need to ensure equality for participants based on language by engaging a translator to overcome the linguistic barrier. The challenges of preparing and finding competent translators negatively affect the rights of participants in criminal proceedings, making the use of AI-driven translation technology essential.

AI-based translation technology provides instant and accurate translation of both spoken and written speech in multiple languages, facilitating effective communication between participants who speak different languages. This technology, compared to human resources, offers higher accuracy, especially for rare language combinations, legal nuances, and technical terminology. It minimizes the possibility of misunderstandings or disputes regarding testimonies, thus supporting a fair trial. AI-based translation and transcription significantly reduce reliance on human translators, eliminating challenges related to scheduling and coordination, which enhances the efficiency of court hearings.

It should be noted that AI technologies can be useful not only during court hearings and communication among participants in criminal proceedings but also for translating judicial decisions. For example, AI software translates decisions and rulings of the Supreme Court of India into 9 languages, promoting access to judicial decisions for representatives of national minorities.

It is also important to highlight that the use of AI as a tool for delegating secondary tasks offers an opportunity to streamline the work of court stenographers and allow them to focus on other critical aspects of their duties. Currently, there are

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numerous AI programs capable of quickly and accurately recording all spoken words, reducing the risk of errors that may arise during manual transcription, and also performing text transcription. This software can convert audio and video to text in real-time, precisely capturing everything said by participants during court proceedings.

This feature not only simplifies the process of creating accurate written records of criminal proceedings but also significantly eases the workload of court secretaries. Furthermore, AI technologies can process the obtained text by structuring and formatting it into official documents, such as minutes of hearings (Silva, A. de O., Janes, D. dos S., & Santos , . R. 2024). For example, the Supreme Court of the Philippines has already begun pilot testing AI technologies, which, among other things, include the use of software for voice-to-text transcription for court stenographers.

The use of AI by judges when making decisions has sparked considerable debate. Proponents of the technology argue that AI algorithms can speed up and simplify this process by automatically analyzing case facts, generating the reasoning behind judicial decisions, predicting the likelihood of recidivism in criminal offenses, and forming recommendations for sentencing.

While the implementation of this technology could significantly enhance the efficiency of criminal proceedings, its use is prohibited in Ukraine and several other countries due to concerns over the fairness and transparency of decisions. One such example is recent allegations against Portuguese judges for using AI, resulting in illegal and unjust decisions. When filing an appeal, the defense attorneys pointed to peculiar expressions used by the judges, careless Portuguese language, citations of non-existent legal provisions, and the presentation of general legal reasoning rather than a detailed analysis of all the circumstances of the crime and available evidence (Tutida, A. Y., Rossetto, C. R., Santos , R. C. dos, & Mazon , G. 2022). According to the lawyers, this indicates that the decision may have been generated by some other computer or digital tool, such as ChatGPT, making it unlawful.

This controversy highlights the delicate balance between using AI to increase efficiency and maintaining the essential principles of fairness and transparency in the judicial process. Therefore, we share the view of scholars and practitioners regarding the necessity of preserving the human factor in decision-making in criminal cases, as it is crucial for justice to consider not only the facts and legal provisions but also the ethical, social, and psychological conditions under which the criminal offense was committed.

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A detailed study of the possibilities of using AI in criminal justice reveals the following advantages:

First, the automation of routine tasks and the rapid analysis of available evidence, legal acts, and relevant case law allow for increased productivity and the swift completion of criminal proceedings, thus contributing to compliance with reasonable timelines for criminal justice.

Second, the enhancement of the accuracy of criminal justice, as AI algorithms identify correlations within large datasets that may be lost or inaccessible for human analysis; this is particularly relevant in the assessment of evidence and translation.

Third, the improvement of resource distribution within the criminal justice system by directing the work of judges and court staff to areas that undoubtedly require the human factor (Rodrigues, L. C., Dagobi da Silva, R., Espinosa, S. M., & Riscarolli, V. 2024). These advantages have already led to the active development of legislation and infrastructure for the use of artificial intelligence in criminal justice. Specifically, according to the Strategic Plan of the Supreme Court for Judicial Innovations for 2022-2027, the Philippines has planned the integration of AI into the judicial system's management structure. This will be applied in areas such as personnel, finance, security, as well as in legal research, document analysis, filing petitions to the court, and case management.

In addition to the opportunities, the use of AI in criminal justice also presents a number of challenges related to human rights. The fundamental principle of human rights protection in the information environment is that these rights must be reliably safeguarded both in real life and in the digital space. At the same time, there is a widespread belief that this technology may not only reproduce but also amplify existing social stereotypes, leading to violations or limitations of the rights of specific population groups based on race, nationality, religion, language, and other characteristics. These concerns are not unfounded, as many algorithms are based on the coding of historical data that may be imperfect due to a prolonged history of discriminatory policies, as well as reflecting historical biases and inequalities. Furthermore, the processes of AI activity are not transparent or easily explainable, which complicates understanding how a specific result was obtained. This may lead not only to the violation or limitation of procedural rights, determined by a specific criminal procedural status, in violation of the principles of legality, equality, and adversarial proceedings, but also have negative consequences for basic human rights.

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There are also challenges regarding the quality of tasks performed by AI. Developers and users acknowledge that AI algorithms are still not perfect and can make mistakes, especially in new or complex situations, as these often rely on information that may be false and/or inaccurate. Additionally, AI may encounter difficulties in understanding context or nuances of human behavior, making it less effective in situations where emotional intuition or cultural awareness is needed. Such shortcomings are unacceptable, particularly in situations where the fate of an individual, in terms of their guilt in a criminal offense and potential conviction, is being decided.

Equally significant are the challenges concerning the confidentiality of personal data, which may be collected, processed, and stored in the course of working with AI, and the overall protection of this data from unauthorized interference in the application of this technology.

In light of the above, it is considered that to ensure the effectiveness and ethics of AI usage, criminal justice bodies must adhere to certain principles. The system of these principles, which is entirely relevant to Ukrainian practice, is outlined in the EU Ethical Charter on the use of AI in the judicial system and its environment, and includes the following elements: "respect for fundamental human rights when using AI; prevention of the development of any discrimination between individuals or groups of individuals; quality and security of judicial decision-making and data processing in a secure technological environment; the principle of 'user control,' meaning that all procedural aspects, capabilities, and functions of AI must be clearly explained in understandable language, in accordance with Article 6 of the European Convention on Human Rights; transparency, impartiality, and fairness".

In addition, it is our view that additional safeguards should be implemented regarding the legality of using AI in criminal justice to maintain a balance between its potential benefits and the risks to human rights directly related to it. In particular, it is necessary to introduce periodic training for judges and court staff on the use of AI in criminal justice, considering the rapid evolution of generative artificial intelligence technologies. We also consider it appropriate to establish a legislative ban on the use of personal data of participants in criminal proceedings and/or other restricted-access information during the use of AI algorithms. Furthermore, unauthorized AI should be prohibited from being used on state technological resources to protect confidential data and uphold the legality of criminal proceedings. It is also appropriate to establish a

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dedicated unit within the court responsible for ensuring compliance with digital security rules when using AI during the performance of official duties.

Based on the above, it can be stated that both domestic and global practices are currently forming the foundations for the implementation of AI tools in the administration of justice, particularly in criminal cases. Given the complexity of the public-law nature of criminal proceedings, there is a need to strike a delicate balance between leveraging the potential advantages of AI to enhance public safety and operational efficiency, while ensuring the mandatory protection of individual rights, guaranteeing procedural fairness, and addressing issues related to ethics and security.

4 CONCLUSIONS

Summarizing the results of the conducted research, we conclude that the development of information technologies has significantly contributed to the integration of artificial intelligence (AI) technologies into criminal justice, opening up new opportunities for the automation of routine tasks, data analysis, evidence evaluation, and facilitation of translation. These technologies are applied in various areas, from the automated processing of court decisions to enhancing the accuracy of translations and real-time creation of procedural documents. However, the implementation of AI in criminal justice requires careful attention to legislative restrictions, ethics, and general standards aimed at ensuring human rights and avoiding violations of the principles of fairness, equality, and transparency.

The absence of clear legislative norms and ethical standards may lead to criticism of the use of these technologies from both theorists and practitioners, as without proper control and clear frameworks for AI application, there is a risk of violating the rights of individuals and discriminating against specific population groups.

Therefore, the implementation of AI technologies must not only ensure the efficiency and timeliness of judicial processes but also guarantee the protection of fundamental human rights and procedural fairness to avoid potential abuses and maintain public trust in the justice system.

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Submetido em: 17/03/2025
Aprovado em: 25/10/2025
Avaliação: Double Blind Reviewe
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